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Digital peer learning for transformative professional agency: The case of homelessness practitioners in Finland

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Abstract

Digital lifelong learning and more specifically digital peer learning (DPL) can play a major role to foster transformative agency in professions and occupations which are critically positioned for responding to acute societal needs. Yet so far, no published studies seem to have focused on this. This article aims at filling this gap with the help of a study in which online workshops and web forums were created for supporting homelessness practitioners in Finland to share and discuss scattered practical innovations and to generate advanced solutions to problems in their work. By these means, the study also generated data to see if transformative agency takes place among these professionals by means of DPL, how this happens, and with what results for the critical field of homelessness work. This study opens up a new agenda for research and development in lifelong learning in a digital era.

KEYWORDS

digital peer learning, expansive learning, Finnish Housing First, homelessness practitioners, transformative agency

Practitioner notes

What is already known about this topic

- As digital peer learning (DPL) can be largely organized by the learners themselves, it carries significant advantages for lifelong learning and work development: a close link to the field of practice and to clients' and stakeholders' needs, potentially a wide reach of practitioners, little institutional investment, and cost-effectiveness.
- The application of DPL raises a number of challenges we summarize here as the spectator challenge, the challenge of drowning in details, and the discontinuity challenge.

What this paper adds

- DPL literature lacks specific contributions on how it can support practitioners to identify and implement concrete solutions to pressing needs in society.
- This article shows that DPL may facilitate professional transformative agency in such a way that the two processes can intersect with one another and generate concrete and effective lifelong learning solutions for much needed developments in critical fields such as homelessness work.

Implications for practice and/or policy

- Cultivating personally and professionally meaningful conflicts of motives evokes emotional involvement and potentially also learners' curiosity and cognitive engagement, opening an avenue to transcend the spectator stance.
- Experience and discursive elaboration of a conflict of motives directs learners to focus on the essential, thus providing an effective means for overcoming the risk of drowning in details. This can be facilitated by offering artifacts, metaphors, or models which may be taken up by practitioners in DPL as support or “second stimuli” to engage in transformative initiatives.
- To transcend the discontinuity challenge salient in many DPL processes, it is of particular importance to find ways to embed DPL and engage the learners in long-term change efforts. Even relatively short online workshops and web forum discussions can gain momentum when efforts are made to establish links between past experiences and the future prospects.

INTRODUCTION

Pressing global needs of our time such as achieving carbon neutrality, responding to mass migration, and extinguishing pandemics require hybrid and networked initiatives that enable humane and effective solutions to be found and implemented. For this, digital lifelong learning can potentially play a major role as it allows acquisition of competences beyond traditional boundaries of sectors, locations, and time schedules throughout the lifespan. One particularly promising digital lifelong learning area is peer learning in professions and occupations which are critically positioned for finding and implementing solutions to acute societal needs. As digital peer learning (DPL) can be largely organized by the learners themselves, it carries significant advantages for meaningful work development: a close link to the field of practice and to clients' and stakeholders' needs, potentially a wide reach of practitioners, little institutional investment, and cost-effectiveness. The application of DPL to pressing societal needs also raises new challenges. These are addressed here with the help of a study in which DPL was mobilized for transformative professional agency among homelessness practitioners (HPs) in Finland.

From 2008 to 2019, with three successive national programs, HPs in this country have been retrained to carry out work informed by the Finnish Housing First principle (Pleace et al., 2016). As a consequence, they have developed a strong set of values and commitment to eradicate homelessness (Y-Foundation, 2017). Finnish Housing First's emphasis on housing, combined with this major lifelong learning effort, has led to widely acclaimed results (Henley, 2019; Kaakinen, 2018). Yet in recent years, new challenges have risen. A particularly demanding group of clients has emerged, for instance, which requires the heaviest and most diverse services, and whose housing solutions have repeatedly failed. Regenerating a sustained learning effort with HPs is vital to maintain and improve the Finnish Housing First results obtained so far.

This study is the continuation of a project in which a long-term partnership was established between the research team and HPs working in supported housing units, as well as in several municipal and national organizations. Using the activity-theoretical framework of transformative agency by double stimulation (TADS, Sannino, 2020a, 2020b), this study develops a systematic approach to grasp DPL processes for contributing to the solving of acute societal problems. The study also points at viable pedagogical instruments to support practitioners. With the help of online workshops (OWSs) and web forums (WFs) combined with a digital videolibrary, we created conditions for HPs across Finland to share and discuss scattered practical innovations and to generate advanced solutions to problems in their practice. By these means, the study also generated data to see if TADS is formed among these professionals by means of DPL, how and with what results for the critical field of homelessness work.

The OWSs, WFs, and the digital videolibrary are embedded in a nationwide long-term collective effort to eradicate homelessness. This collective effort may in itself be regarded as a large-scale hybrid learning context, aimed at providing "learners with possibilities to co-create future knowledge and societal value that go beyond immediate learning for the here and now" (Nørgård, this issue). This type of embedded lifelong learning strives for capability building (Poquet & De Laat, this issue) among clients of homelessness work as well as among professional practitioners and communities.

Peer learning in networked online communities has been studied with the help of the concepts of communities of practice, epistemic practice, and knowledge community (Dohn et al., 2020; Guldberg, 2008) and focused on the potential of specific technologies (Huijser et al., 2008). Altınay (2017) used cultural-historical activity theory to examine the potentials of DPL among higher education students. In their study of DPL among career practitioners of a public employment service, Schaefer et al. (2020) showed that even without a dedicated tutor, the participants can be involved in coconstruction of new knowledge when the topic under discussion is highly relevant and controversial; learners themselves can take over the facilitation of the process. However, so far, no published studies seem to have focused specifically on the potential of DPL in the formation of professional agency to address acute societal needs. A study of Bridwell-Mitchell (2016) focuses on the relationship between peer learning and collaborative agency, but it does not involve data on DPL. This study aims at filling this gap, by asking the following research questions:

1. How can steps in transformative agency by double stimulation be observed in digital peer learning for homelessness practitioners?
2. What constraints and potentials does digital peer learning entail for the transformative agency by double stimulation process for homelessness practitioners?

The next section presents the TADS framework and its relevance for enhancing DPL and more generally digital lifelong learning. After that, we discuss existing literature on the potentials and challenges of DPL. In the subsequent three sections, we describe the study, the

participants and the data collected, and our method of analysis. We then present as a detailed example the analysis of an unfolding TADS progression in the online workshop (OWS) and related webforum (WF) on the theme of working with challenging clients and violent situations. An overview of the analyses conducted on all the five OWSs and WFs follows. We conclude by returning to the research questions and with a discussion of the findings.

FOSTERING TADS BY MEANS OF DPL IN HOMELESSNESS WORK

DPL literature lacks specific contributions on how it can support practitioners to identify and implement concrete solutions to pressing needs in society. This study offers a theoretically and empirically grounded perspective on DPL for transformative professional agency. In this study, by DPL, we refer to expansive forms of learning taking place among practitioners with the help of digital technology to solve challenges in their work. TADS refers to the process by which practitioners intentionally break out of paralyzing circumstances by transforming them with the help of artifacts they develop and put into use. This study indicates that DPL may facilitate TADS in such a way that the two processes can intersect with one another and generate concrete and effective solutions for much needed developments in critical fields such as homelessness work. Our approach to DPL differs from the perspective of networked communities of practice (Lodge & Corrin, 2017) in its specific conceptualizations of learning and agency and of their interconnection.

Despite the widely recognized success of Finnish Housing First, HPs are confronted with new acute challenges, concerning in particular clients in need of significant and diverse services and whose housing solutions have repeatedly failed. When striving to meet the needs of these clients, HPs may themselves become vulnerable to clients' aggressive reactions. Yet, advanced innovative solutions are available for instance for dealing with aggressive clients, or for creating and operating multiprofessional mobile support teams. These solutions remain, however, scattered and many practitioners experience isolation and a sense of powerlessness.

Expansive forms of learning (Engeström, 1987/2015) consist of joint reconceptualization efforts by collectives pursuing transformations for which there are not ready-made end solutions. In the case of this study, the long-term object and aim of HPs' work is the functional independent living of the poorest in publicly funded supported housing, struggling to overcome the consequences a history of homelessness carries with it such as traumas, addictions, and abuse. This is a tension-filled objective, due to the costs and extensive change it entails in mindsets, practices, and material arrangements. Strong agentive actions of commitment and their concrete implementation are needed to pursue such objects. There is ample empirical evidence that expansive learning can lead to qualitative transformations at the level of reorganization of collective activities and their broader contexts (e.g., Sannino et al., 2009; Sannino & Ellis, 2013). When collectives learn expansively, they also construct a new vision and long-term engagement. That is why recent literature points at TADS (Figure 1) as a core process of expansive learning (Hopwood, 2017; Sannino, 2020b).

Figure 1 depicts the TADS process. Its precondition and starting point are conflicts of motives (first stimulus) (Step 1) that may paralyze professional practice, for instance, between wanting to work in a housing unit to help eradicate homelessness but fearing to become an object of violent reaction by clients. The literature on homelessness work is rich in examples of such conflicts (e.g., Sannino & Engeström, 2018). TADS is set in motion by means of artifacts that serve the function of an auxiliary motive (second stimuli) (Step 2). A second stimulus serves as a fixed point or stable platform for transformative action. A wide range of artifacts, including digital ones (Aagaard & Lund, 2020; Lund & Vestøl, 2020), may be used as second stimuli depending on the problem situation and available resources.

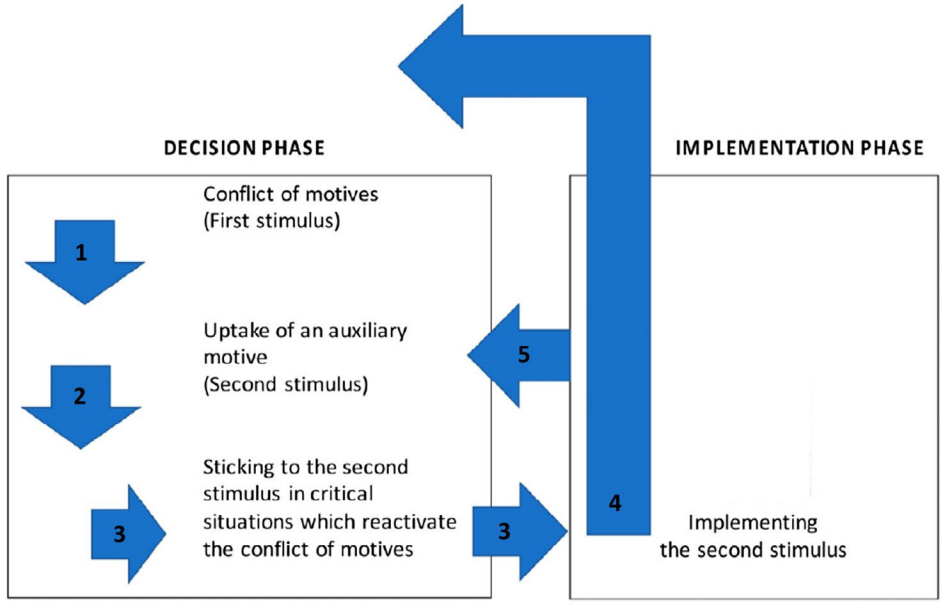

FIGURE 1 Transformative agency by double stimulation (TADS)

In the early activity-theoretical works of Vygotsky (1987), priority has been given to language and discursive interactions as potential second stimuli. Recent research shows, however, that verbal interactions must be of a particular kind and represent only one possible artifactual resource (Sannino, 2008, 2020b). Interactions that may lead to agency take the form of envisioning of or commitments to perform a certain action at a specific time and place. For instance, in a housing unit, a practitioner said that when clients start fighting, she does something clumsy (e.g., dropping an object) and voices helplessness while doing so. This attracts the clients' attention toward her and changes the situation as they stop fighting and start helping her.

The repeated implementation of a procedure such as this (Steps 3 to 5, Figure 1) presented in a peer learning context allows practitioners to see that they are not alone in experiencing troubling conflicts of motives and that practical action to overcome them is possible. This strengthens ("expands") HPs' understanding of the situation and their capacity to take further actions. Also, this in turn strengthens a collective process of learning expansively together, that is, turning more to one another to design, implement and consolidate novel solutions to problems in work. In the DPL study reported here, we hypothesized that video-recorded accounts of innovative solutions among peers could play a key role in supporting TADS within OWSs and WF discussions.

A prior study involving peers from this same field (Sannino, 2020a, 2020b) showed strong features of newly undertaken steps toward consolidating expansive learning and TADS by means of face-to-face workshops which gathered 61 practitioners in total, distributed in different workshops, times and locations. By initiating the study presented here, we aimed at observing the extent to which OWS and WF could further energize peer learning among HP's to work out solutions to the new challenges they are experiencing. For this, within this study, the OWSs and the WFs were designed as a set of interconnected spaces for collaborative discussions among practitioners. The choice of OWSs and WFs was motivated by the need to bring together practitioners from different locations by combining synchronous and asynchronous possibilities of access to the presented innovations and to colleagues. This

technological setup affords flexible adaptation in work conditions which require readiness to respond to emergencies. The design was adapted from the Change Laboratory approach (Virkkunen & Newnham, 2013), usually used to trigger and support expansive learning and TADS in face-to-face workshops. The adaptation consisted of selecting Zoom as a platform conducive to discussions and debates among the practitioners. Zoom effectively supported the interactions in the OWSs. The WFs, instead, turned out to be less conducive to the learning process, most likely because this professional group favors hands-on activities with clients and colleagues and seldom has time for individual writing.

CHALLENGES OF PEER LEARNING

DPL often faces the challenge of what is characterized as "the isolated learner" (Gillett-Swan, 2017). Professional learning is by definition embedded in a community of peers which alleviates the isolation challenge. However, DPL faces a number of different critical obstacles, especially when mobilized in contexts and for objectives such as the ones in our study. First, DPL features of distant interactions typically allow participants to casually remain as spectators who watch, read and listen rather than get involved in productive co-construction and debate. Chiu and Hew (2018, p. 24) found that students involved in asynchronous online discussion in MOOCs (massive open online courses) "intend to get information as quickly as possible for their convenience. In the forums, they would rather read (less cognitive processing) instead of responding." This stance may lead to low level of engagement and the adoption of the role of detached observer: "Some learners like to participate in the learning as viewers rather than as commenters" (Chiu & Hew, 2018, p. 25). We call this the *spectator challenge*.

Secondly, DPL can become an opportunity for pouring detailed accounts on experiences and practices without identification and articulation of what might be essential and crucial. Such exchange of "war stories" (Orr, 1996) can be very instructive, but it can also lead to an excessively descriptive stance and overwhelming emphasis of idiosyncratic details, sometimes characterized as "spray-on professional development" (Quinn et al., 2019, p. 407). We call this the *challenge of drowning in details*.

Thirdly, DPL is commonly organized as OWSs, each focused on a specific theme or topic, but with little continuity across topics and sessions, what Quinn et al. (2019, p. 407) call "short-form, one-off generic webinars." This can lead to fragmentation and difficulty to create connections between issues. This is accentuated when the participants may change from one session to another, making it difficult to build on conversations conducted in previous sessions. We call this the *discontinuity challenge*.

In what follows, we analyze how the HPs in our study dealt with the three challenges. But first we need to explain the context of the study.

PARTICIPANTS AND DATA

The participants are practitioners who have direct contact with clients who are homeless, at risk of homelessness, or who have received housing after a prolonged period of homelessness. These professionals are active in municipal social, health and housing services as well as third sector service providers and associations. According to cautious estimates, approximately 1,500 such professionals work in Finland.

At the beginning of the project, experienced practitioners selected by leading homelessness experts were invited to an initial meeting to determine what are the most urgent themes to be addressed in subsequent workshops. This meeting and the workshops were originally

meant to be carried out in face-to-face meetings, but due to COVID-19, they took place via Zoom. Our OWS format was similar to the way in which Carlson et al. (2019) used Zoom as a platform for student-led peer learning webinars with nursing students. The students used initial patient cases as points of departure for expanded discussions: "The case provided a forum for engagement between students allowing them to work with the nursing related questions in the case but also supported engagement in gaining knowledge of each other's nursing context. Thereby, the case created an extended space for learning beyond what was originally intended by academics and described in the instructions given to students prior to the webinars" (Carlson et al., 2019, p. 1523).

The selection of the themes of our OWSs was structured on the basis of information gathered in our previous study (Sannino, 2020a, 2020b) and on the basis of pre-questionnaires answered and submitted to the project by HPs. Each OWS involved presentations by selected practitioners known for their innovative practices, followed by discussions. We refer to these practitioners as presenters, to distinguish them from practitioners who participated without giving a prepared presentation. Each workshop had 2 to 3 presentations for a total of 12 presentations. Both the OWSs and WFs were open to all HPs via the mailing lists of the national network operating in this sector. All practitioners were asked to register and give their consent to participate in the study.

Video-recordings of presentations from the workshops were placed on a webpage specifically created for the project with a video library section organized by the five selected themes and connected to five respective WFs. Access to the webpage requires a password and the signing of the study consent. The videolibrary and WFs served the purpose of a wider and longer-term dissemination and discussion of the presented innovations. The information on the videolibrary and the WF has been sent to all organizations working with homelessness in Finland. The videolibrary has remained accessible to the HP's also after the data collection ended.

The data collected consists of (1) videotaped presentations in the OWSs, (2) recorded discussions in the OWSs after the presentations, and (3) WF discussions on the videos of the presentations. Table 1 gives an overview of the themes and the participation in the WSs and WFs.

The OWSs took place with an interval of roughly one month. Each OWS lasted 2 hrs with numbers of speaking turns ranging from 114 to 178, and 7 to 8 practitioners actively participating in the discussions. The videos of the presentations in the workshops were made available on the WF the day after the workshop. The possibility of posting comments on the WF on Theme 1 started on April 17. The WFs on the other themes followed as each

TABLE 1 Themes and participation in the WSs and WFs

Themes	WS date	WS participants	WF reads	Posts in the WF
1. Working with challenging clients and violent situations	April 16, 2020	21	263	9
2. Organizing low-threshold work activities for and with clients	May 19, 2020	18	159	1
3. Community building in and around the housing unit	August 13, 2020	22	129	3
4. Building forward-looking housing paths together with customers and other actors	September 15, 2020	17	192	4
5. Arranging mobile multi-professional support for clients	October 27, 2020	21	31	0

OWS took place. All WFs remained open till December 15, 2020. By this date, 17 posts were written in the WFs. Up to April 15, 2021, there were 1,081 visits to the videolibrary and WFs.

METHODS OF ANALYSIS

Our analysis proceeded in the following phases. First, we carefully read the entire transcripts of the five OWSs, aimed at gaining an overview of key features of these data. In this overview phase we focused on five features of the discourse roughly corresponding to the TADS steps in Figure 1: (1) verbalizations of conflicts of motives—Step 1; (2) envisioning of possibilities to transform the practice—Step 2; (3) commitments to undertake specific transformative actions—Step 2; (4) references to previous or forthcoming speakers' utterances and presentations as well as to specific previous transformation efforts in the field of homelessness work—Step 2; and (5) concrete innovative solutions and practices put forward by presenters and other participants—Steps 3 to 5.

To identify occurrences of the five categories in the data, two members of the research group coded independently the five transcripts. The codings were compared and disagreements were discussed. The disagreements were thoroughly examined and the team reached a consensus in each one of them. Table 2 presents the distribution of the categories across the dataset.

The category of conflicts of motives and the category of concrete innovations were the most numerous and rich in contents. In the coding of verbalizations of conflicts of motives, we used the method of analyzing discursive manifestations of contradictions (Engeström & Sannino, 2011) as a heuristic support device, although at this stage we aimed only at overall identification rather than systematic classification of the verbalizations of conflicts of motives. We wanted to keep the category sufficiently broad so that we would not miss verbalizations that might turn out to be important in closer qualitative analysis; thus, we included also relatively mild or ambiguous verbalizations of conflicts in the coding. In the identification of innovative solutions and practices, the analysis of employee-driven innovations by Haapasaari et al. (2018) served as useful background for our coding.

In the second phase of the analysis, all WSs and WF discussions were examined to find evidence of TADS steps. For each theme of the OWSs and WFs, we first re-read the entire transcripts and posts, looking for particularly salient verbalizations of conflicts of motives as well as proposed integrative ideas, artifacts, metaphors or concepts around which specific innovations might be clustered. This initial reading led to a tentative identification of a TADS process in each OWS. Each tentative TADS process was analyzed in three steps, focusing on (1) identification of a central *conflict of motives* in the discourse of the practitioners, (2) identification of a potential *second stimulus* put forward by some practitioners, and (3) identification of efforts to *envision new forms of practice* or *commit to actions of implementing them*. This analytical procedure is based on the methodological guidelines developed by Sannino (2015, 2020a, 2020b) and applied by Hopwood and Gottschalk (2017), Yang (2021) and others.

TADS IN OWS1: REMOVING THE PLEXIGLASS OFFICE BOX

Here, we analyze in some detail one of the TADS progressions on the theme of “Working with challenging clients and violent situations” in the OWS1 and WF1. OWS1 started with presentations by HPs from two supported housing units for formerly homeless residents. The housing units operate on the basis of the Finnish Housing First principle, which means

TABLE 2 Distribution of the categories across the dataset

	1	2	3	4	5	All
Theme	**Dealing with violent situations**	**Low threshold work activities**	**Community building**	**Supporting forward oriented pathways**	**Mobile support**	**Total**
Conflicts of motives	27	26	15	22	22	112
Envisioning possibilities	8	2	14	9	4	37
Committments to actions	0	3	3	1	5	12
References to presentations	10	13	9	9	14	55
Concrete innovations	27	31	42	28	9	137
Total	72	75	83	69	54	353

that the use of alcohol and drugs in the residents' own apartments is not forbidden. The conflict of motives emerged as a *clash between fear and trust*.

Presenter 1: “The staff of the housing unit say it aloud to the residents, that it is very difficult to work with you, if one has to be afraid at the same time. Fear is such a feeling that we cannot work if we are scared all the time.”

Practitioner T: “If a resident grabs you physically, hits you, or something. How does the practitioner get over the fear, or the insecurity? If the resident continues living in the unit, I don't know.”

Presenter 2a: “There have been residents who are in psychosis. Then, even if we know the client, we cannot know what will happen. Anything can happen. The client is in such a state.”

Presenter 1: “If you behave violently, we immediately call the police and you are removed from the housing unit. But that does not mean that you lose your apartment. It means that you come back next morning and you will have a conversation with us about what happened. And it may be that we won't succeed the first time, or the second time, or the third time. But then, at some point, the client may learn. So one way or another, we keep returning to the matter, and we go through it with him or her. I counted that one of our residents was taken to jail for 14 times during his first month of residency. And in the morning he always came back, until we somehow began to establish a contact with him. And now in his personal housing plan, on his own initiative, we have recorded that he himself wishes that we act with him in a certain way when he behaves in a threatening or violent way. […] So what is important is the trust that is built between many residents and the staff.”

The second presentation in OWS1 included three examples of threatening situations with residents in the housing unit. The presenters pointed out the importance of having a protective office separated from the residents by means of plexiglass windows.

Presenter 2b: “We used to have discussions with clients in the office. Nowadays we don't do that anymore because the space is cramped and it is difficult to get away from it in a violent situation. […] We are redesigning the space, to get protective plexiglass windows into the office and emergency exits. It is pretty much in the center, that office, and there are two entrances into it directly from the common space where there are often also clients and its windows are easy to smash.”

Another practitioner challenged the idea of a protective box, arguing for its removal. This practitioner suggested that instead of separation, the staff should aim at co-presence and interaction based on trust and equality with the residents. The analysis indicates that the *removal of the plexiglass office box* served as a potential second stimulus for a direct call for action. The two excerpts below show how practitioners K and V took up the removal of the plexiglass office to offer a supportive resource to their peers in response to the conflict voiced earlier between the *motive of fear and the motive of trust*. Importantly, this second stimulus was tied to a temporal continuity by means of strong reference to the example and experiences of another, well-known supported housing unit, a process we supported and analyzed in a preceding study (Sannino, 2020b).

Practitioner K: “I am thinking of an example. We have a couple of times visited XX [name of the unit deleted] housing unit. It houses a large number of residents who are very difficult to help and have their own rental apartments in the unit. I remember that between our first and second visit, they had undertaken such a transformation that the office of the staff had been removed. They were not anymore inside the box, they were among the residents all the time. And that had apparently brought good results. When the staff are present all the time with people, these kinds of [violent] situations were reduced. And they could intervene at the very beginning, because they saw what was going on from the start. And this made sense to me, too.”

Practitioner V: “Yes, the point of departure is more presence and less protective plexiglass and emergency exits. They may be important, too, but there in XX [name of the unit deleted] they have invested more in the presence, and generating safety through that. We know the people we interact with and this generates trust, and safety.”

Presenter 1 picked up the example and continued connecting it further back, into the recent history of *temporary shelters* for the homeless.

Presenter 1: “We have experienced the same, during the past few years we have been unlearning, moving away from office box behavior. […] But there has been quite a lot of resistance. Because in a way the office box is a safe haven in a situation in which one really has to escape. And it also carries some remnants of the old culture of emergency shelters for the homeless. In the old days when one entered a shelter, the guard custodian was there behind a plexiglass. Many people connect it to that, many remember those situations.”

Later, presenter 1 and practitioner V took steps to connect the acute challenge of difficult client encounters with a future vision, pointing out that the present need for safety can in the long run only be satisfied by means of an overall *change of the work culture* away from the shelter concept of work.

Presenter 1: “I think that there are two different matters here. In a way I also agree that there must of course be a place where one can protect oneself. […] But then there is the entire culture of work, how we are when the situation is calm […] that we are with the clients, we make decisions together. […] These are structures of power, we should not hide behind them all the time so that we do not dare to be with the residents anymore. This is what it's about, more than about the need to have an escape when the situation demands that.”

Practitioner V: “Yes, it is just like that. How do we change the culture of work. It is a long journey.”

Envisioning then continued in the two posts below in WF1 after OWS1, confirming the key role that reflection plays in learner agency (Bandura, 2006).

Practitioner S: “I was left thinking whether it would be possible to more closely integrate models of action in acute threatening situations and perspectives of long-term support, as concrete practices and competences in everyday work. […] Perhaps the practical challenge is that safety competence and Finnish Housing First competence are often discussed separately. By connecting them and developing concrete practices we might strengthen both safety and the ethical Finnish Housing First work. The presentations and the discussion already brought up promising practices: drafting and agreeing upon rules with residents, practices of mediation, etc. The unifying factor is participatory involvement of the residents in both prevention and acute resolution of situations of threat and violence…”.

Practitioner P: “This discussion highlighted the important role of prevention. How important it is to be prepared for something that you wish will never happen! I was left thinking of a sentence of Presenter 1: ‘We cannot work if we are scared all the time.’ I think it is honest to tell the client that this is the situation. What will we change together so that I can work with you and you can benefit from this work?”

The TADS structure emerging here is summarized in Figure 2.

OVERVIEW OF TADS IN OWSS AND WFS AND EVIDENCE OF LEARNING AMONG PEERS

We analyzed the discourse of the other OWSs and WSs by tracing possible emerging TADS as in the example presented above for OWS1 and WF1. Figure 3 summarizes the overall analysis. The arrows in the table point at the learning contents acquired and/or adopted for developing homelessness work and put in active use for supporting peers.

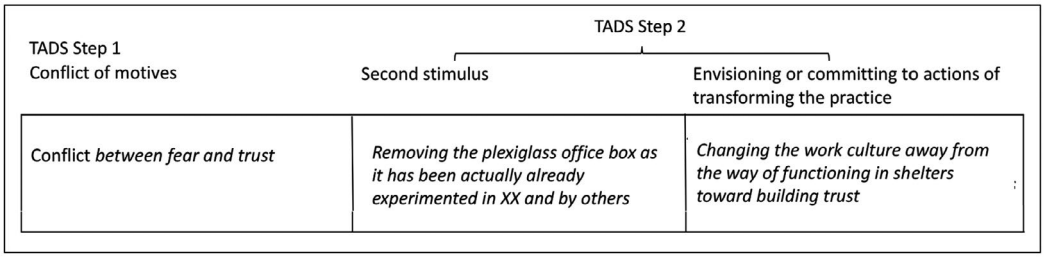

FIGURE 2 TADS as unfolding in OWS1

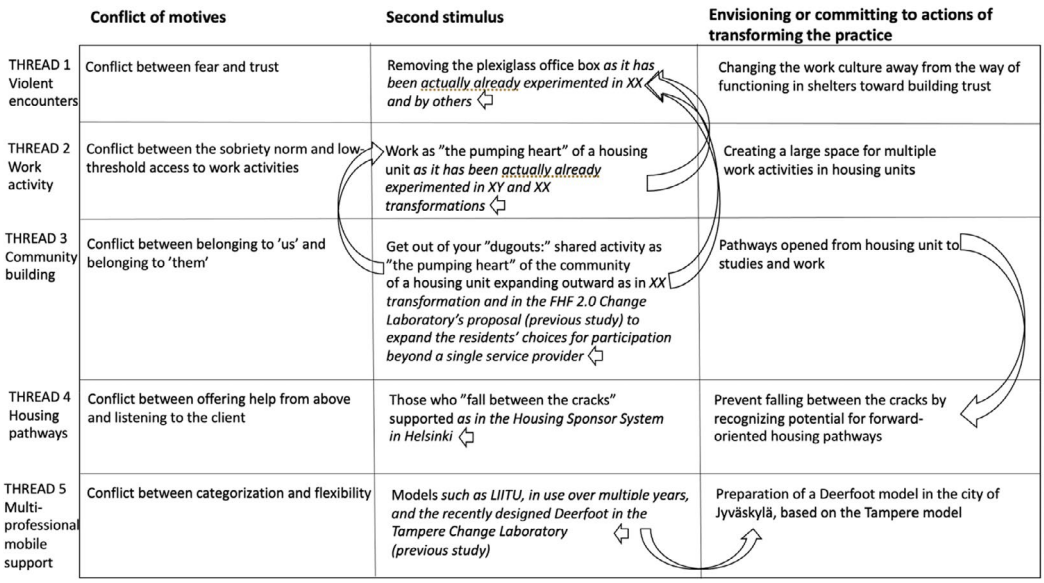

FIGURE 3 Overview of the emerging TADS in the OWSs and WFs

Firstly, in each one of the OWSs, we could identify a conflict of motives. These conflicts were expressed both as disagreements between practitioners and as troublesome tensions brought up by singular practitioners. The conflicts of motives were taken up in multiple turns of talk in a stepwise and tentative manner rather than as predefined comprehensive statements or emotionally loaded outbursts. In other words, the conflicts were cultivated rather than proclaimed.

Secondly, the suggested second stimuli were of three types. The first one, the plexiglass office box, was a palpable *material artifact* still found in housing units. The second, third and fourth ones were all strong *metaphors:* pumping heart, dugouts, and falling between the cracks. The fifth second stimulus consisted of two specific *models* of organizing multi-professional mobile support (LIITU and Deerfoot). All these three types of second stimulus gained traction among the practitioners, manifested in questions, comments and commitments.

Thirdly, in each one of the TADS progressions we identified both references to well-known past experiences (indicated with italics and the backward arrows in Figure 3) and envisioning of or commitments to future actions to transform homelessness work. The relationship

between envisioning and commitment to action is an important topic for future analysis (for an early attempt of such analysis, see Engeström et al., 2003).

In addition to these past- and future-oriented efforts, we found also references to parallel TADS progressions across the OWSs and WFs (indicated with backward and forward curved arrows in Figure 3) and horizontally across the organizations the HPs represent. These are for instance references to issues discussed in previous workshops. Also, in the fifth workshop, a model designed by practitioners in one city was explicitly endorsed and adopted by representatives of another city. This was perhaps the strongest evidence of learning intertwined with TADS, when the practitioners actually committed to specific transformative actions. Importantly, this commitment included both a reference to a model that was initiated in face-to-face workshops in the previous study (Sannino, 2020a) and an explication of future actions to be taken to adopt the model elsewhere in the next few months. This indicates that DPL here involved a TADS process that could effectively bridge efforts started one year earlier (in a study with HPs from the same organizations) and future developments in a different organization and location.

DISCUSSION AND CONCLUSION: LESSONS FOR DIGITAL PEER LEARNING

We set out to seek answers to two questions: (1) How can TADS steps be observed in DPL for homelessness practitioners (HPs)? (2) What constraints and potentials does DPL entail for the TADS process for HPs?

The first two steps of TADS as depicted in Figure 1, were identified for all the themes of OWSs and WFs in this study: conflict of motives (Step 1) and uptake of an auxiliary motive or second stimulus with the prospect of future use in the form of envisioning or actual commitment (Step 2). Steps 3–5 consisting in holding on the second stimulus when the foreseen critical situation (e.g., a violent episode) actually takes place, and implementing the second stimulus (e.g., a procedure acquired in the workshop), can typically be observed in contexts of actual practice. In the OWS discussions and WFs, however, intentional moves toward implementation are signaled by means of envisioning patterns of transformed practice and committing to actions of implementing such transformations. A qualified affirmative answer can therefore be given to the first research question: TADS' first two steps were observed for the themes of the OWSs and WFs, but the third and fourth steps of the TADS model were only anticipated by means of envisioning and committing to actions. It is a task of further research to follow up and trace possible steps of actual implementation taken by the practitioners.

Based on existing research, we pointed out three challenges to DPL, namely the spectator challenge, the challenge of drowning in details, and the discontinuity challenge. TADS steps identified in our data (conflict of motives, identifying a second stimulus and envisioning or committing to transformative actions) may be interpreted as antidotes to or stepping stones to overcome the three challenges. These three steps can be translated into pedagogical instruments, as depicted in Table 3.

When practitioners face a personally and professionally meaningful conflict of motives, their emotional involvement and potentially also their curiosity and cognitive engagement are evoked (Berlyne, 1960; Johnson & Johnson, 2009; Sannino, 2008), opening an avenue to transcend the spectator stance. To accomplish this, conflicts of motives need to be identified and cultivated in peer learning sessions. By *cultivating conflicts* we mean articulation and calling the practitioners' attention to, as well as elaboration and expansion of potential conflicts of motives. This can be done both by the practitioners and by those acting as facilitators in the sessions. We found consistent evidence of practitioners' cultivation of motive

TABLE 3 Challenges of professional DPL and pedagogical instruments for dealing with them

Challenges of online professional peer learning	Steps in double stimulation	Pedagogical instruments for dealing with the challenges
1. Spectator challenge	Conflict of motives	Cultivating conflict
2. Challenge of drowning in details	Identifying a second stimulus (auxiliary motive)	Offering a resource which peers may hold onto in the struggle between motives
3. Discontinuity challenge	Envisioning and committing to transformative actions	Establishing links with past and future developments and/or bridging between them

conflicts in this study. Our findings are in line with those of Schaefer, Fabian and Klopp (2020) who point out that the participants of DPL can be involved in co-construction of new knowledge when the topic under discussion is highly relevant and controversial. In other words, the object and contents of learning are of decisive importance.

In a conflict of motives, learners typically seek for support that allows them to find a way out—an auxiliary motive or second stimulus. The experience and discursive elaboration of a conflict of motives directs them to focus on and crystallize the essential, thus providing an effective means for overcoming the risk of drowning in details. This can be facilitated by offering ideas, artifacts, metaphors or models which possibly can be taken up by the participants in DPL as support to engage in transformative initiatives. This kind of integrative and potentially liberating resource may or may not find traction among learners. Prior analyses have shown that second stimuli resonating with the conflicts of motives practitioners are experiencing can powerfully help developing HP's work activities (e.g., Sannino, 2020b). Our findings indicate that these supports can be offered as video-recorded presentations to be discussed in DPL.

TADS typically takes the shape of a recurring progression that may be conceived of as weaving a continuous and resilient expansive learning. To transcend the discontinuity challenge salient in many DPL processes, it is of particular importance to find ways to engage the learners in such long-term efforts. When topics and partly even participants change from one DPL session to another, it is difficult to ensure recurring TADS progressions. For this it may be more realistic to see these processes as expansive learning threads that have continuity with past events and to actions to be taken in the future. But we should not underestimate two continuity-building aspects, namely, the power of the shared object and purpose—in this case, eradicating homelessness—and the power of professionals' quest for temporal reach and connectedness even in the absence of a context of strong continuity. Styhre (2006) makes this point powerfully in his study of peer learning in construction work.

"In peer-based learning, temporality is perhaps the single most important component because it is the location within the durée that makes the object of learning meaningful; without fully understanding how a certain practice in a construction work situation is dependent upon previous experiences and potential future events, there will be few possibilities of learning how to deal with that practice." (Styhre, 2006, p. 101–102; see also Engeström et al., 2003; Sannino et al., 2009; Vetoshkina et al., 2017).

Our findings indicate that even relatively short OWSs can gain significant and sustainable momentum when efforts are made to establish links between the past and the future. Despite turnover of practitioners across OWSs, some did participate in most of them and the WF and videolibrary supported continuity. In other words, continuity of DPL can be fostered in a seemingly discontinuous format when the workshops are *embedded* in activities, challenges and transformations that are in themselves longitudinal and persistent. This is in line with the findings of Miguel and Duran (2017, p. 358) who found that a key factor in

the success of a peer learning network among teachers was that it was shaped as "a 'slow' and continuous three-year cycle." In our case, the time span of the five workshops and associated web forum discussions was eight months. However, this will be followed in 2021 by a second cycle of additional OWSs, returning to implementation experiences gained in the same topics as those discussed in the first cycle.

Our conclusion is that to gain impact, professional DPL should not be designed as a stand-alone arrangement. Greater impact will probably be gained when peer learning is *embedded* in "interconnected networks of practice" (Mackey & Evans, 2011), that is, in distributed durable activities and longer-term efforts at transforming professional practice. In other words, beyond advocating blended learning, this study emphasizes the need for embedding DPL in distributed long-term transformation efforts. We may characterize this type of learning as embedded and expansive peer learning. *Cultivating conflicts*, *offering potentially supportive resources (artifacts*, *metaphors or models) for overcoming the conflicts*, and *establishing links with the past and future* are potentially powerful pedagogical instruments for such DPL in a broad range of educational contexts, professions and occupations. This conclusion opens up a new agenda for research and development in lifelong learning in a digital era.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ETHICS STATEMENT

The research presented in this article was carried out under the ethical guidelines of Tampere University, the Academy of Finland, the Finnish National Board on Research Integrity (TENK) and the European Union Data Protection Regulations. Particular attention was paid to the rules concerning openness, anonymity, informed consent, and non-exploitation. Permissions from all participants were obtained for collecting and using the data for research purposes.

DATA AVAILABILITY STATEMENT

As soon as the project results are published and the ongoing research project funded by the Finnish Work Environment Fund (2019–2021) ends, the data will become freely accessible through the Finnish Social Science Data Archive.

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